

# Macdonald Wagner

1934-1984  
Fifty Years of  
Achievement





**In June 1984, Macdonald Wagner & Priddle celebrates 50 years of achievement as one of Australia's leading engineering and management companies. This year marks another major development for the Company in changing its name to Macdonald Wagner Pty Ltd.**

**The new name reflects the Company's modern style and approach, while retaining important links with the founders and the principles established by them.**

## **Fifty Years of Achievement**

Macdonald Wagner's significant achievements in recent years are based on the foresight and integrity of two men, Alex Macdonald and Eric Wagner, who guided the Company in its early years.

In 1934, these like-minded men opened a partnership office in George Street, Sydney, and with three draftsmen, they laid the foundations for a company which is today a leader in planning, engineering and project management, with over four hundred people involved in projects across Australia and in many other countries.

In 1936, they hired Ray Priddle as their first graduate engineer, and he became a partner in the Firm in 1944, adding his name to the Firm's title. Ray Priddle was the first of nine partners to join the founders over the next 27 years after which time the partnership was incorporated.

By 1944, the Company was well on its path of growth in experience and innovation, a path which has paralleled the development of this nation over the last 50 years.

## **The Early Years**

The period from 1934 to the late 1940s was a time of consolidation for Macdonald Wagner. During this period, most of the work was structural engineering for industrial and commercial developments.

The first major project after World War II was a design for a new cement plant in Adelaide. This project was the beginning of one industry specialisation which the Company still practises today.

As the economy expanded, Macdonald Wagner grew to meet the needs of its clients and the market and, in particular, formed the base of the expertise in bulk materials storage and handling projects which has contributed significantly towards the Company's success both in Australia and overseas.

An office was opened in Perth in 1959 to supervise the construction of grain terminals designed by the Firm, and the Brisbane office, opened in 1946 for similar work on power stations, had expanded

considerably by that time due to the number of projects undertaken for the Queensland bulk sugar export programme.

Some three decades after its establishment, Macdonald Wagner had established a reputation for the successful engineering of projects necessary to develop Australia's resources.

## **The Years of Expansion**

Along with the boom years of the '60s came a demand for more effective use of resources, and this led to a need for a more complete approach to clients' projects. During these years, Macdonald Wagner began its development into the multi-disciplinary Company which it has become today. The first mechanical engineer was hired; a close relationship was established with a firm of consulting electrical engineers (which later merged with Macdonald Wagner); the first computer terminals were installed, and the first major overseas project was commenced.

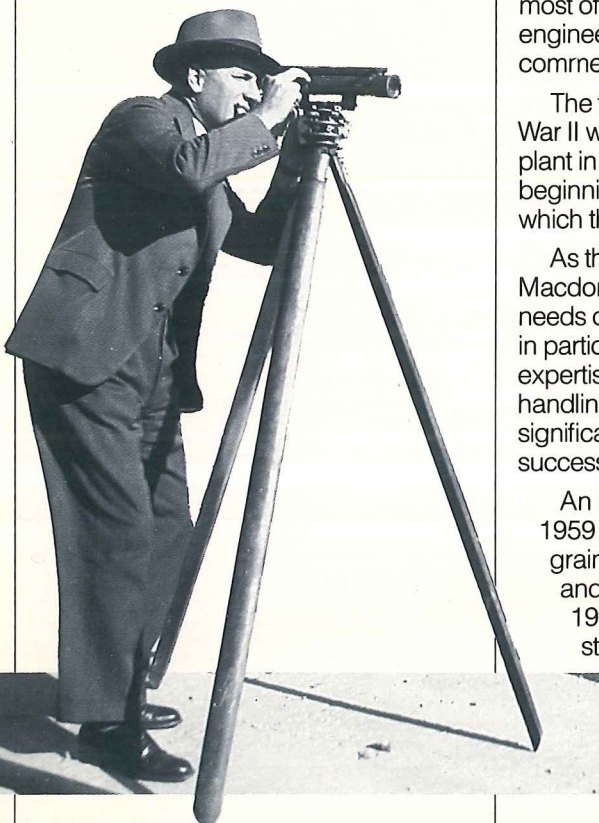
In the late '60s Macdonald Wagner carried out the design and construction management of a grain storage and handling facility in Nakuru, Kenya. This was the first of many such projects, as Australian expertise in primary produce handling and exporting became known and in demand overseas.

In the last 15 years, the Company's involvement in overseas projects has ranged from design and construction management of a huge sugar terminal in Mauritius to the planning of new port facilities in Thailand.

Back home, Macdonald Wagner moved into new areas of activity such as the design of radio telescopes and communications stations, including being part of the consortium which planned and designed the VLF communications station in Western Australia for the US Government.

By the time it completed one of the largest grain terminals in the world at Kwinana, Western Australia in 1976, Macdonald Wagner had become a complete multi-disciplinary Company. The design of an automated detergent manufacturing plant at Minto, NSW, for example, involved civil, structural, mechanical, process and automation engineering disciplines, as well as building services skills, during the course of the five-year project.

By 1977, Macdonald Wagner had outgrown its offices and moved to Northpoint, North Sydney where its head office now occupies five floors. Brisbane faced similar problems and a new office, was officially opened on





29 February 1984 by the Premier of Queensland.

The 1970s closed with the completion of one of the most challenging projects managed by the Company, the off-shore facilities for bulk sugar loading at Lucinda in Queensland. This project demanded a complete range of engineering and management skills. Macdonald Wagner had come a long way from the single-disciplinary Firm of the 1930s.

## Achievement by Innovation

Innovation has always been a matter of principle with Macdonald Wagner. As far back as 1920, Alex Macdonald had introduced new concepts and techniques in the use and application of reinforced concrete. This practice of keeping up to date with the latest technology and making it available to

clients in the most effective manner has remained a hallmark of the Company.

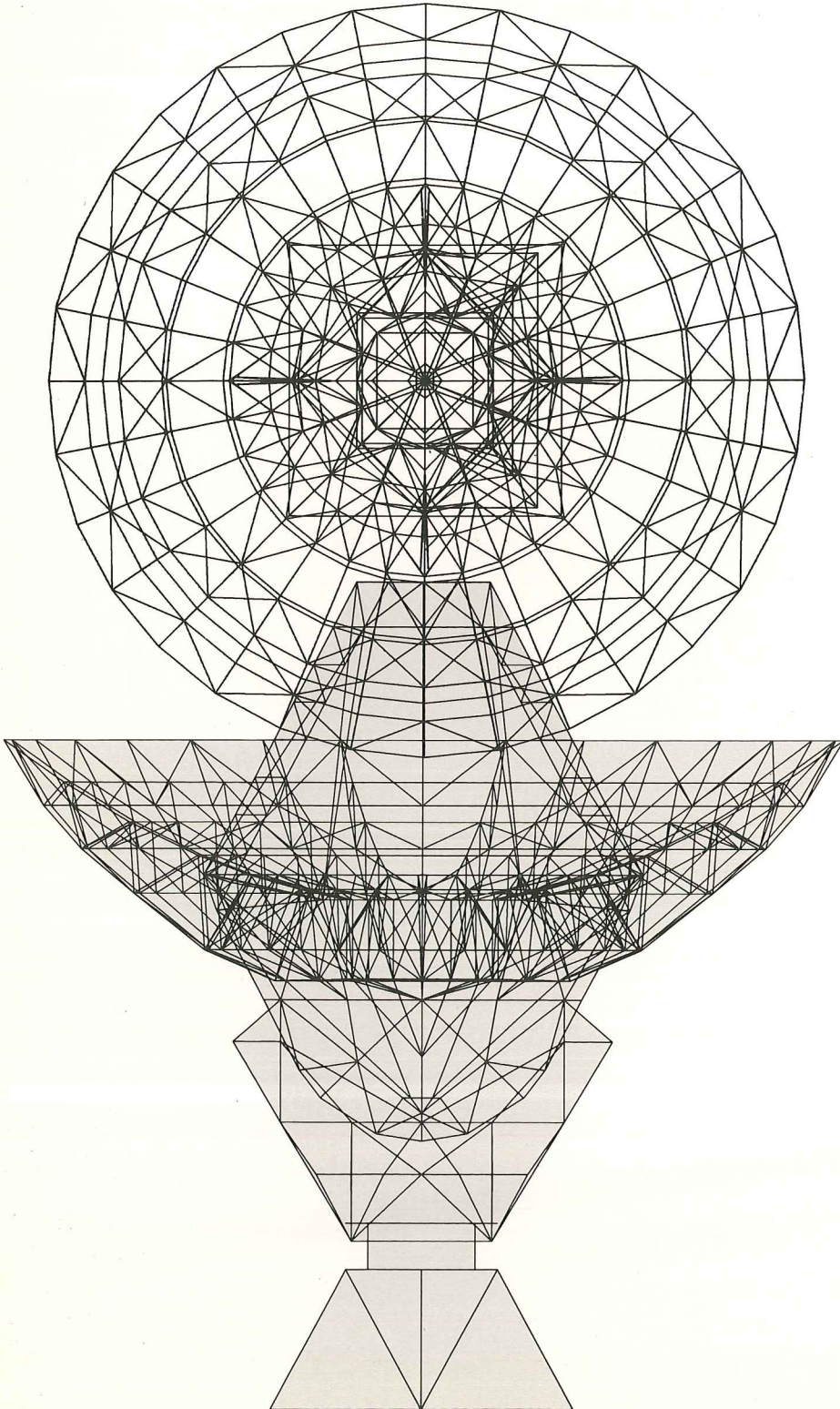
The latest examples are in the Company's successful development and application of the technique of computer aided drafting (CAD), and the Company's computerised project control packages. These control packages, together with the professional management services provided by the Company, help to ensure that projects meet the client's objectives and come in on time and within budget.

Macdonald Wagner has always attracted high calibre engineers and managers, without whose dedicated work the Company would not now be celebrating 50 years of achievements.

In the past year alone, the Company has been involved in such unique and diverse activities as the Gateway Bridge, currently Brisbane's most spectacular engineering work, the design of highway extensions in NSW, and the \$250 million Dalrymple Bay coal-loading terminal.

## Reaching to The Future

As Macdonald Wagner celebrates its 50 years of achievement, it looks forward to an exciting future. It has on hand projects in all States of Australia and in many countries overseas. One of these projects is to design the dish antenna of the \$25 million Australia telescope, a project which symbolises Australia's position in the forefront of modern technology. The commissioning of such a futuristic project underlines Macdonald Wagner's development into one of the world's major planning, engineering design and project management groups.



**Fifty Years of  
Achievement**





## Alexander S. Macdonald

Born in Scotland in 1888. Alexander Macdonald obtained his AGTC degree with distinction from Glasgow Technical College in 1910, and later received a BSc from Glasgow University. He spent three years in Brazil and Canada before coming to Australia in 1915. Later that year he joined the Australian Expeditionary Forces and served overseas.

After the war, Macdonald worked as a design engineer on reinforced concrete applications in Glasgow and London. Shortly after returning to Australia, he was invited to join A.S. Hart, Sydney's leading consulting structural engineer at the time. On Hart's sudden death in 1920 he carried on the practice in his own name until Eric Wagner joined him in 1934, and Macdonald Wagner was formed.

Alex Macdonald was very active in professional and public affairs. He was a founding member and first Treasurer of the Association of Consulting Structural Engineers in 1933, and President in 1936. He served on committees of the Institution of Engineers Australia and the Standards Association of Australia.

## Macdonald Wagner

Engineers Managers



## Eric G. Wagner

Born in Queensland in 1898. Eric Wagner graduated in Civil Engineering, University of Queensland in 1921. His first job was to have a continuing influence on his career: he became Engineer in Charge of grain elevator construction with the NSW Department of Agriculture only eight months after graduating from university. He started his own practice in 1926 after a short period designing structures for a steel manufacturer.

He had built up a successful practice, mainly designing buildings for architects, including much of Sydney's William Street when, in 1934, he accepted Alex Macdonald's invitation to become his junior partner. Within a year, Wagner was an equal partner, and was soon the dynamo of the Firm as Macdonald's ill-health restricted his energy.

For the 20 years after Macdonald's death until his own retirement in 1974, Eric Wagner was the growing Company's senior partner, guiding it as it became multi-disciplinary in its service to an expanding Australian and international clientele.

Active in professional life from the beginning of his career, Eric Wagner was a founder and later president of the NSW Association of Structural Engineers.

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## Raymond A. Priddle

Raymond Priddle was born in NSW in 1913. He graduated as a Bachelor of Engineering with high distinction and the University Medal from Sydney University in 1934, and spent two years with the DMR and the Sydney City Council before joining A.S. Macdonald & Wagner as their first graduate engineer.

His major efforts were in structural engineering designs for architectural clients, although, fascinated by technological innovation, he was heavily involved in the design of such projects as the CSIRO Radio Telescope at Parkes and the Anglo-Australia 150-inch optical telescope at Coonabarabran.

Ray Priddle held a series of positions within the Institution of Engineers Australia and the Association of Consulting Engineers, being elected President of the former in the sixties. He also held office in the Association of Consulting Engineers and on committees of the Standards Association. He was appointed a fellow of the Senate of the University of Sydney in 1968.

Ray Priddle died in 1971, six weeks after becoming the first Chairman of Directors of the newly incorporated company which had evolved from the Firm he had helped shape in his 35 years as design engineer and partner.

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